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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,124	07/06/2001	Ping-Sheng Tseng	16503-302401	6518

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OPPENHEIMER WOLFF & DONNELLY

P. O. BOX 10356

PALO ALTO, CA 94303

EXAMINER
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KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 05/28/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

File

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/900,124	TSENG, PING-SHENG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Clifford H Knoll	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 6, 8, 10-17, 20, 22-27, 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8, 10-17, 20, 22-27 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Office Action is responsive to communication filed 2/27/04. Claims 2-5, 7, 9, 18-19, 21, 28, and 30 have been cancelled. Claims 1, 6, 8, 10-17, 20, 22-27, and 29 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 112***

Amended claims have overcome previous rejection. Rejection under 35 USC 112 has been withdrawn.

#### ***Claim Rejections - 35 USC § 102***

*Claims 1-30 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hara (US 5031095).*

Regarding claim 1, Hara discloses transmission logic in the first logic device for transmitting any N-bit signal group that changed in value M bits at a time (e.g., col.6, lines 55-58), reception logic for receiving the N-bit signal group (e.g., col.6, lines 46-49), the transmission logic comprising an event detector for detecting a change in value among the N-bit signal groups and providing an event indication identifying the particular changed signal group (e.g., col.6, lines 26-30), receiving the event indication

and dividing the N-bit signal group into M-bit data groups (e.g., col.6, lines 46-49), and receiving, holding and passing a token (e.g., col.7, lines 62-65).

Regarding claim 6, Hara also discloses scan out logic for selecting the M-bit data groups for transmission across the M-bit wide conductive element (e.g., col.6, lines 46-49).

Regarding claim 8, Hara also discloses header decode unit to receive the M-bit data groups and determining to which N-bit signal group these data groups belong (e.g., col.9, lines 15-19).

Regarding claim 10, Hara also discloses transmitting the M-bit data groups when it holds a token (e.g., col.7, lines 62-65).

Regarding claim 11, Hara also discloses holding the token when it receives an event indication (e.g., col.6, lines 26-30).

Regarding claim 12, Hara also discloses passing the token when it does not receive an event indication (e.g., col.6, lines 26-30).

Regarding claim 13, Hara discloses an event detector network for detecting a change in value among the N-bit signal groups (e.g., col.6, lines 26-30), and selecting the N-bit signal group that changed in value and scheduling its transmission (e.g., col.7, lines 29-31), the scheduler includes a plurality of packet schedulers each associated with its own N-bit signal group (e.g., col.4, lines 2-7), the packet schedulers decide among themselves which signal group to transmit (e.g., col.5, lines 20-25), the packet schedulers pass tokens to each other, holding or passing the token (e.g., col.8, lines 31-44).

Regarding claim 14, Hara also discloses  $N > M$  and dividing the N-bit signal into a plurality of M-bit groups (e.g., col.8, lines 5-10).

Regarding claim 15, Hara also discloses event detectors, each associated with its own N-bit signal group (e.g., col.9, lines 17-18).

Regarding claim 16, Hara also discloses an event detector for each N-bit signal group detecting a change in value among the N-bit signal groups and providing an event indication identifying the particular changed signal group (e.g., col.9, lines 17-18).

Regarding claim 17, Hara also discloses the scheduler includes a plurality of packet schedulers each associated with its own N-bit signal group (e.g., col.4, lines 2-7).

Regarding claim 20, Hara also discloses  $N > M$ , and each packet scheduler receives the event indication and divides the N-bit signal group into M-bit data groups (e.g., col.7, lines 46-54).

Regarding claims 22 and 23, Hara also discloses the packet scheduler transmits its M-bit data when it holds a token (e.g., col.8, lines 19-24).

Regarding claim 24, Hara also discloses holding a token when it receives the token and an event indication (e.g., col.8, lines 21-23).

Regarding claim 25, Hara also discloses passing a token when it receives the token and no event indication has been received (e.g., col.8, lines 1-10).

Regarding claim 26, Hara discloses detecting a change in value among the N-bit signal groups (e.g., col.7, lines 35-40), processing the N-bit signal group into a transmission data group, and transmitting the group across the M-bit wide connection

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(e.g., col.7, lines 46-54), identifying the N-bit signal group that experienced the change in value (e.g., col.7, lines 24-28), determining whether the identified N-bit signal group has a token and scheduling the transmission if it has the token (e.g., col.8, lines 11-24).

Regarding claim 27, Hara also discloses  $N > M$ , dividing the N-bit signal groups into M-bit data groups (e.g., col.7, lines 46-54).

Regarding claim 29, Hara also discloses transmitting the data group by transmitting M bits at a time (e.g., col.7, lines 46-54).

### ***Response to Arguments***

Applicant's arguments, see pages 7-8, filed 2/27/04, with respect to the rejection by Chapin and by Arimilli have been fully considered and are persuasive. These rejection have been withdrawn. In particular, the recitation of a token, "receiving, holding, and passing", as incorporated into the independent claims, has been deemed not taught by either Chapin or Arimilli.

Applicant's arguments with respect to rejection by Hara have been fully considered but they are not persuasive.

Regarding amended claims 1, 13, and 26, Applicant argues that use of a "token ring scheme" is not taught in the references. However, the recitation is not sufficient to indicate a token ring scheme and merely recites a "token", which must be interpreted as broadly as reasonable by the Examiner. In fact, Hara does disclose a token that is

received, held, and passed at the passage cited. The token, which in Hara coincides with the communication of a different ring device, is received and held while a communication from the device is sent. Subsequently the held communication is passed. As recited, the token of Hara is deemed anticipatory.

Thus rejection of claims under Hara is maintained.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In an updated search, additional art has been determined relevant. Kunimoto (JP 05014365) discloses sensing changed data and, if no data has changed, passing a token in a token ring scheme.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MARK H. RINEHART  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2103